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| APPLICATION NO | ). [ I                                     | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|----------------|--------------------------------------------|-------------|----------------------|-------------------------|------------------|--|
| 10/723,440     | 10/723,440 11/25/2003                      |             | Carlos L. Barton     | RGP-0144                | 6251             |  |
| 23413          | 7590                                       | 06/24/2005  |                      | EXAMINER                |                  |  |
| CANTOR         | COLBUI                                     | RN, LLP     | BERMAN, SUSAN W      |                         |                  |  |
|                | 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 |             |                      | ART UNIT                | PAPER NUMBER     |  |
|                | ·                                          |             |                      | 1711                    | 1711             |  |
|                |                                            |             |                      | DATE MAILED, 06/24/2006 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <u> </u>                                                                                                                                                                                                          |               |  |  |  |  |  |
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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Application No.                                                                                                                                                                                                   | Applicant(s)  |  |  |  |  |  |
| Office Action Summany                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10/723,440                                                                                                                                                                                                        | BARTON ET AL. |  |  |  |  |  |
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Examiner                                                                                                                                                                                                          | Art Unit      |  |  |  |  |  |
| The MAN INC DATE of this committee in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Susan W. Berman                                                                                                                                                                                                   | 1711          |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| 1) Responsive to communication(s) filed on                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | _•                                                                                                                                                                                                                |               |  |  |  |  |  |
| <u> </u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | action is non-final.                                                                                                                                                                                              |               |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. |               |  |  |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| 4) ⊠ Claim(s) <u>1-19</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-19</u> is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | vn from consideration.                                                                                                                                                                                            |               |  |  |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| Replacement drawing sheet(s) including the correcting 11) The oath or declaration is objected to by the Ex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| Priority under 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                   |               |  |  |  |  |  |
| <ol> <li>Notice of References Cited (PTO-892)</li> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>Paper No(s)/Mail Date 6/04, 11/03.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:                                                                                                                                        |               |  |  |  |  |  |

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### Claim Objections

Claim 6, line 2 set forth "a, a bisphenol compound, , a glycoluril compound". The double commas and double "a"s require correction.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 11, 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 6, it is not clear what is meant by "the curing agent is... a combination comprising at least one of the foregoing curing agents". It is not clear how one curing agent can provide a "combination" of curing agents. If applicant intends to set forth a combination comprising one of the recited curing agents and some other kind of curing agent, it should be so stated and the other kinds of curing agents should be clearly set forth to define the combination. In claim 11, the abbreviation UV renders the claim indefinite and should be replaced with "ultraviolet (UV)". In claims 10, 13 and 14, it is not clear what is meant by "a combination of one or more of the foregoing additives". It is not clear how one additive agent can provide a "combination" of additives. If applicant intends to set forth a combination comprising one of the recited additives and some other kind of additive, it should be so stated and the other kinds of additives should be clearly set forth to define the combination.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-5 and 9-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Castaldi et al (5,296,334). Castaldi et al disclose compositions comprising an esterified styrene-maleic anhydride copolymer esterified with hydroxyalkyl (meth)acrylate, a multifunctional (meth)acrylate monomer and a multifunctional epoxide. Photoinitiators and weight percents are taught in column 6. Imagewise exposure and development is taught in the examples.

Claims 1-6 and 9-19are rejected under 35 U.S.C. 102(b) as being anticipated by Morigaki (6,238,841). Morigaki discloses compositions comprising a component B that can be an acrylate esterified styrene/maleic anhydride copolymer, a photoinitiator and a curing agent, such as an epoxy compound, a blocked isocyanate or an amino resin. See column 7, lines 29-52, column 7, line 61, to column 8, line 17, column 9, lines 23-32, and photosensitive prepolymer P-2 and P-8. Weight percents of components are taught in column 9, line 59, to column 10, line 36.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Castaldi et al or Morigaki, each in view of Eramo, Jr. et al (5,364,736). Each of Castaldi et al and Morigaki teaches adding a curing agent to the disclosed composition. Eramo, Jr. et al disclose photoimageable compositions comprising a binder having carboxyl groups and photocrosslinking acrylate monomers, a photoinitiator and crosslinking agents, such as melamine-formaldehyde. It would have been obvious to one skilled in the art at the time of the invention to employ a melamine-formaldehyde crosslinking agent, as taught by Eramo, Jr. et al in analogous compositions, as the crosslinking agent in the composition taught by Castaldi et al or by Morigaki. Eramo, Jr et al provide motivation by teaching that melamine-formaldehyde condensation

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products are preferred crosslinking agents for photoimageable compositions comprising a styrene-maleic anhydride polymer.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Castaldi et al or Morigaki, each in view of "Powderlink® 1174" trade literature from Cytec Industries. Each of Castaldi et al and Morigaki teaches adding a curing agent to the disclosed composition. Cytec Industries "Powderlink® 1174" trade literature teaches that tetramethoxymethyl glycoluril is an aminoplast crosslinking agent having excellent properties, such as light stability, weather resistance and good overbake, useful for coating for exterior surfaces. It would have been obvious to one skilled in the art at the time of the invention to employ the aminoplast crosslinking agent, tetramethoxymethyl glycoluril, as the crosslinking agent in the composition disclosed by Castaldi et al or by Morigaki. The Cytec literature provides motivation by teaching the excellent properties of the glycoluril.

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lin (6,007,966) discloses compositions comprising a styrene-maleic anhydride polymers reacted with an unsaturated compound containing one hydroxyl and at least three acrylic groups and a saturated alcohol. Both a photoinitiator and a curing agent such as dicyanamide are used in the compositions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan W Berman

Susan Berman

Primary Examiner Art Unit 1711

SB 6/20/05